REMARKS

In the Office Action dated February 24, 2009, the Examiner withdrew the previous subject matter and prior art rejections in response to Applicants Notice of Appeal, but issued new rejections. In particular, the specification was "objected to under 37 CFR 1.75 because the term 'One computer-readable storage medium' in claims 8-10, is not defined in the specification." In addition, claims 11-20 were rejected under 35 U.S.C. § 101 because the claims "contain no hardware"; claims 1-7, 11, and 13-19 were rejected under 35 U.S.C. § 103(a) as being unpatentable over U.S. Patent No. 7,107,338 to Nareddy ("Nareddy") in view of U.S. Publication No. 20020016771 to Carothers ("Carothers"); claims 8-10, 12, and 20 were rejected under U.S.C. § 103(a) as being unpatentable over Nareddy, Carothers and U.S. Publication No. 20040221311 to Dow et al. ("Dow"). Applicants respectfully traverse the rejections for the reasons set forth hereinbelow.

A. Specification Objection Has Been Overcome

In objecting to the specification, the Examiner asserts that the term "One computer-readable storage medium" in claims 8-10 is not defined in the specification. *See*, Office Action, p. 2. As a preliminary matter, Applicants respectfully submit that the cited "computer-readable storage medium" term does not appear in the claims because Applicants' amendment in this respect was not entered by the Patent Office. And even if the claims were amended to include this language, Applicants respectfully submit that a person having ordinary skill in the art would readily and immediately understand the meaning of this term. It would seem frivolous to assert that persons having ordinary skill in the art would not readily understand ordinary and customary meaning of this claim language.

As for the Examiner's requirement that the specification be corrected on this point, Applicants respectfully submit that there is no requirement in the law that each claim term be "defined" in the specification. Indeed, all that is required by 37 C.F.R. § 1.75 is that "[t]he claim or claims must <u>conform</u> to the invention as set forth in the remainder of the specification and the terms and phrases used in the claims must find clear <u>support or antecedent basis in the description so that the meaning of the terms in the claims may be ascertainable by reference to the description</u>." 37 C.F.R. § 1.75(d)(1). The description in the specification clearly meets this requirement with its clear and repeated of computer-readable memory. *See, e.g.*, Application, paragraphs 23 and 27 ("Some portions of the detailed descriptions provided herein are presented

in terms of algorithms or operations on data within a computer <u>memory. Such descriptions and representations are used by those skilled in the data processing arts to describe and convey the substance of their work to others skilled in the art</u>.... A computer system 104 includes one or more microprocessor or central processing units (CPU) 110, <u>mass storage memory 105 and local RAM memory 106</u>.... Computer programs and data are generally stored as instructions and data in <u>mass storage 105 until loaded into main memory 106</u> for execution. <u>Main memory 106 may be comprised of dynamic random access memory (DRAM)</u>. As will be appreciated by those skilled in the art, the CPU 110 may be connected directly (or through an interface or bus) to a variety of peripheral and system components, such as a <u>hard disk drive, cache memory</u>, traditional I/O devices (such as display monitors, mouse-type input devices, floppy disk drives, speaker systems, keyboards, hard drive, CD-ROM drive, modems, printers), network interfaces, terminal devices, televisions, sound devices, voice recognition devices, electronic pen devices, and <u>mass storage devices such as tape drives, hard disks, compact disk ("CD") drives, digital versatile disk ("DVD") drives, and magneto-optical drives."</u>) (emphasis added). While there is additional supporting description, these passages clearly provide support so that the meaning of the "computer-readable storage medium" term may be ascertained. As explained at MPEP § 2164.05(a), "The specification need not disclose what is well-known to those skilled in the art and preferably omits that which is well-known to those skilled and already available to the public." Accordingly, Applicants request that the Examiner reconsider and withdraw the objection to the specification.

      B.   <u>**Claims 11-20 Recite Statutory Subject Matter**</u>

In rejecting claims 11-20 for being "functionally descriptive" under 35 U.S.C. § 101, the Examiner asserted that the claims "contain no hardware. Thus, the claims lack the necessary physical articles or objects to constitute a machine or a manufacture within the meaning of 35 USC 101." *See*, <u>Office Action</u>, p. 2. In response, Applicants respectfully submit that the Examiner is plainly mistaken. Independent claim 11 explicitly recites machine or manufacture <u>hardware</u> by claiming a "system" which includes "log file collection system" (clearly referencing a memory) and a "processing engine" (clearly referencing a processor) which are variously recited in claims 11-17 in terms of selected operational and structural details for processing server request entries to group them by session. Likewise, claim 18 explicitly recites machine or manufacture <u>hardware</u> by claiming a "system" which includes "means for storing network

session data" (clearly referencing a memory) and a "means for processing" (clearly referencing a processor) which are variously recited in claims 18-20 in terms of selected operational and structural details for parsing web site logs by session. While the Examiner is correct that "descriptive material" can be non-statutory when claimed as descriptive material *per se*, the relevant provisions of the MPEP are quite clear that "When functional descriptive material is recorded on some computer-readable medium, it becomes structurally and functionally interrelated to the medium and <u>will be statutory in most cases</u> since use of technology permits the function of the descriptive material to be realized." *See*, MPEP § 2106.01 (emphasis added). In this case, the clear and explicit recitation in claims 11-20 of processor and memory or storage hardware directly falls within a statutory category, and Applicants therefore request that the subject matter rejection of claims 11-20 be reconsidered and withdrawn and that the claims be allowed.

C.   <u>Claims 1-20 Are Not Obvious Over Nareddy, Carothers, and Dow</u>

Applicants have disclosed and claimed a <u>session-based</u> scheme for grouping and processing log file entries using a memory window to select a subset of the log file records for identifying complete session records that may be analyzed or parsed, and for otherwise identifying incomplete session records for subsequent processing. To this end, each of claims 1-20 variously recite a methodology, article of manufacture, and system for grouping log file entries/records or server request entries that belong to a complete client or user session. The system and method for grouping and processing log file entries is described by Applicants in the application as follows:

> [016]   In accordance with one or more embodiments of the present invention, a system and method are provided for <u>grouping and processing log file entries using a memory window to select a subset of the log file records for identifying complete session records</u> that may be analyzed or parsed, and for otherwise identifying incomplete session records for subsequent processing. By storing a subset of the log file data in a ring buffer, <u>complete sessions within the data subset may be identified and grouped for processing without having to make a complete copy of the log file</u>. In one embodiment, selected data structures are used to process the subset of raw log file data to generate log file entries grouped by session. The selected data structures may also be used to generate groups of log file entries for incomplete or defective sessions that are output for subsequent processing. In addition, selected data structures may be used to generate groups of log file entries for sessions that ended after the last entry in the log file.

<p align="center">* * *</p>

[030] <u>Complete user sessions</u> from the log file data contained in database and/or file system 105 <u>are identified and grouped</u> by processing only a subset of the log file data at a time. An exemplary embodiment is illustrated in Figure 2, which shows an overview of how log files are processed using a sliding window to <u>read log files and group entries by session</u>. In this example, a log file processor 203 uses a sliding window 205 on the log file contents 201 so that, at any one time, a substantial portion of the log file 204 is loaded into memory window 205, where this portion may be programmably controlled and adjusted to optimize the performance of the log file processing. The contents of the log file loaded into the window 205 are scanned and read, line by line. The entries are then indexed by the session they belong to. If, at any time, the processor 203 discovers that all log file entries for a given session are present within the current window 205, these log file entries are gathered together and passed off to a component that analyses the individual session 206, such as an analysis component 207. The computational and/or parsing results 208 may then be stored in database 209.

See, Application, paragraphs 16 and 30 (emphasis added). With the claimed technique, a large set of log file entries are processed in a memory-efficient manner by grouping a subset of the entries in memory to identify and group entries for complete user sessions without making a complete copy of the log file in a new, reorganized format. The session-based grouping of log file entries appears in the claims by virtue of claim 1's recitation of "<u>processing each entry</u> in the memory <u>to identify entries in the subset of log file entries that belong to a complete client session</u>" and "<u>grouping entries</u> in the subset <u>that belong to a complete client session</u>." In claim 8, the session-based grouping of file system records is reflected in the requirement of allocating "for each identified user session, <u>an index to identify all records</u> in the ring buffer <u>that are associated with the identified user session</u> and to identify all start or end records" and processing "the index to <u>group all records</u> in the ring buffer <u>belonging to a complete user session</u>...." And in claim 11, the session-based grouping of server request entries is reflected in the requirement of "a processing engine to process a subset of the plurality of server request entries to <u>group the server request entries by session</u> using the session identifier in each server request entry." Finally, the session-based grouping of network session data is contained in claim 18's requirement "means for processing the subset of the network session data to <u>group said network session data by session</u>" and "means for generating a first output file containing <u>network session data grouped by session</u>."

As explained more fully below, Applicants respectfully submit that a *prima facie* case of obviousness has not been established. To establish a *prima facie* case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the

reference as proposed by the Examiner. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to modify the reference and the reasonable expectation of success must both be found in the prior art, not in Applicants' disclosure. MPEP §§ 2143.01-03.

The *prima facie* case fails because the cited art fails to teach or suggest all the claim limitations. *See*, MPEP §§ 2143.03 ("All words in a claim must be considered in judging the patentability of that claim against the prior art."). This deficiency is plainly demonstrated with reference to the rejection analysis of independent claims 1-7 which, according to the Examiner, are disclosed by Nareddy's disclosure (at col. 1, lines 27-60; col. 13, lines 10-49; and col. 49, lines 9-23 and 33-58), except for the claim requirement of "grouping entries in the subset that belong to a complete client session" which the Examiner asserts was disclosed by Carothers' disclosure at, paragraph 10 and Figure 15 which shows a list of examples of standard reports, including a "Session Summary Report." *See*, Office Action, pp. 3-6. With all due respect, Applicants submit that the cited Carothers disclosure no where discloses or suggests the claim requirements for grouping log file entries that belong to a complete client session, as readily seen from the cited passage set forth below:

> [0010] In an aspect of the present invention, individual transaction records are parsed to ASCII text file format, all fields are converted to ASCII text file format, columnized text is produced, and dates and times of individual transaction records are formatted into recognizable Structured Query Language (SQL) formatted values. In addition, each transaction entry is examined to determine a type of function for the transaction, each transaction encountered in the examination is written as a line to an output file, and all transactions encountered are grouped by transaction according to a data column of the transaction journal record that refers back to a session log record. The unique integer key value is assigned to each individual transaction record in the ASCII text output files and written to a pre-defined column in each output file for loading to the relational database system. In addition, transaction times are computed for each of the individual transaction records and added to the corresponding output file.

Carothers, ¶10 (emphasis added). While Carothers does disclose that "transactions encountered are grouped by transaction" and that a separate "session log file" is also created, Carothers is quite explicit that "The session log file 44 is actually a special occurrence of any other TJ function code 46. It is drawn separately, because the TJ records have a data column that refers back to the session log record, so that all transactions can be **grouped by transaction**." Carothers, paragraph 56. As for the reference in Carothers Figure 15 to the example "standard report" entitled "Session Summary Report," this is described by Carothers as being "a weekly,

monthly, or yearly report" without any explanation of how this "standard report" was generated. Carothers, paragraph 119. Conspicuously absent from Carothers disclosure is any indication that the "Session Summary Report" is generated using Applicants' claimed invention for retrieving a *subset* of log file entries, processing each log file entry *to identify those belonging to a complete client session*, and then *grouping the entries belonging to the complete client session*. For all that can be discerned from Carothers, the conventional techniques for processing website server log files (such as described in the "Description of the Related Art" section of the present application) were used to generate the "Session Summary Report." Thus, Carothers explicit disclosure that transactions may be grouped <u>by transaction</u> does not meet the requirement of grouping subset entries that belong to a complete client session, and as a result, there is no teaching or suggestion by Nareddy or Carothers of *grouping log file entries by session* by *identifying entries* in a subset of logfile entries *that belong to complete session*, nor of *grouping* entries in the subset *that belong to a complete session*. Accordingly, Applicants submit that a *prima facie* case of obviousness has not been established for claims 1-7.

In similar fashion, the cited art fails to teach or suggest the requirements in claims 8-10 of an computer software which "read[s] a plurality of records from a file system into a ring buffer, where said plurality or records comprises a subset of all records in the file system" and "allocate[s], for each identified user session, an index <u>to identify all records in the ring buffer that are associated with the identified user session</u> and to identify all start or end records" and then "<u>process[es] the index to group all records in the ring buffer belonging to a complete user session</u>, to output the grouped records for further analysis." Claim 8 (emphasis added). After admitting that these requirements from claim 8 are missing from Nareddy, the Examiner cites selected passages from Carothers and Dow to meet the claim requirements. *See,* <u>Office Action</u>, pp. 18-21. With all due respect, Applicants submit that the cited passages no where disclose or suggest the claim requirements for grouping records in the ring buffer belonging to a complete user session, as readily seen from the cited Carothers passages set forth below:

> [0007] It is a further feature and advantage of the present invention to provide a system and method for managing information concerning financial transactions that produces reports, for example, of function usage and that enables grouping of certain functions by their category.

> [0010] In an aspect of the present invention, individual transaction records are parsed to ASCII text file format, all fields are converted to ASCII text file format, columnized text is produced, and dates and times of individual transaction records are formatted into

-11-

recognizable Structured Query Language (SQL) formatted values. In addition, each transaction entry is examined to determine a type of function for the transaction, each transaction encountered in the examination is written as a line to an output file, and all transactions encountered are grouped by transaction according to a data column of the transaction journal record that refers back to a session log record. The unique integer key value is assigned to each individual transaction record in the ASCII text output files and written to a pre-defined column in each output file for loading to the relational database system. In addition, transaction times are computed for each of the individual transaction records and added to the corresponding output file.

[0014] Additionally, the called method invokes an isolating the next transaction journal message API to position the next transaction message in the transaction journal log, read the transaction message contents, and insert the transaction message in a static buffer. A status is returned to the VB application indicating, for example, a function code for the transaction message, if an end-of-file in the transaction journal log was reached, and/or if a garbled section of the transaction journal log was encountered. If the end-of-file status is returned, the VB application can decide to quit or move on to another transaction message; if the garbled section of the transaction journal log status is returned, the VB application can decide to quit or continue to a next recognizable section of the transaction journal log; and if the function code status is returned, the VB application is provided with the function code for the message which can be used to determine a VB class to populate. Further, the called method invokes a returning a transaction message buffer address API for returning the transaction message buffer memory address used by a message processing method.

[0115] In an embodiment of the present invention, there are a number of definitions relevant to reporting. For example, for reporting purposes, users are categorized by their usage of the home banking system. FIG. 11 is a table which shows examples of categories of users according to usage of a home banking system. The categories include, for example, continuously active user 100, first time active user 102, resumed active user 104, one month inactive user 106, two month inactive user 108, and no longer active user 110. A continuously active user 100 is defined as a customer who has at least one valid session for the current month and at least one valid session for the preceding month. A first time active user 102 is defined as a customer who has at least one valid session for the current month and has never been active before. A resumed active user 104 is defined as a customer who has at least one valid session for the current month and had no valid sessions for the preceding month. A one month inactive user 106 is defined as a customer who has no valid sessions for the current month, but had at least one valid session for the preceding month. A two month inactive user 108 is defined as a customer who has no valid sessions for the current or preceding month, but had at least one valid session for the month two months before. For example, for December, the two month inactive user 108 did not have any valid sessions in December or November, but did have a valid session in October. A no longer active user 110 is defined as a customer who has no valid sessions for the current month and the preceding two months, but had at least one valid session some time in the past. The user or customer count is defined as the number of distinct customer identification numbers or login ID numbers associated with all successful logons or valid sessions for the time period on which is being reported.

Carothers, ¶¶ 7, 10, 14, 115 (emphasis added). While Carothers discloses that "transactions encountered are grouped <u>by transaction</u>" and that a separate "session log file" is also created, Carothers is quite explicit that "The session log file 44 is actually a special occurrence of any other TJ function code 46. It is drawn separately, because the TJ records have a data column that refers back to the session log record, <u>so that all transactions can be **grouped by transaction**</u>." Carothers, paragraph 56. Thus, Carothers discloses only that transactions may be grouped <u>by transaction</u>, and there is no teaching or suggestion by Nareddy, Carothers or Dow of allocating indexes for each identified user session <u>to identify all records in the ring buffer that are associated with the identified user session</u>, nor of processing the indexes <u>to group all records in the ring buffer belonging to a complete user session</u>. Accordingly, Applicants submit that a *prima facie* case of obviousness has not been established for claims 8-10.

As for claims 11-17, the cited art fails to teach or suggest the requirements of a system for <u>session-based processing of log files</u> which includes "a processing engine to process a subset of the plurality of server request entries <u>to group the server request entries by session</u> using the session identifier in each server request entry." Claim 11 (emphasis added). After admitting that claim 11's requirement of grouping the server request entries by session is missing from Nareddy, the Examiner cites paragraph 10 and Figure 15 from Carothers to meet the claim requirements. *See*, <u>Final Office Action</u>, pp. 10-12. With all due respect, Applicants submit that the cited passage no where disclose or suggest the claim requirements for <u>session-based processing of log files</u>, as readily seen from the cited Carothers passage quoted above. Again, Carothers' reference to grouping all transactions <u>by transaction</u> does not amount to a teaching or suggestion of a system for <u>session-based processing of log files</u> which includes a processing engine to process a subset of the plurality of server request entries <u>to group the server request entries by session</u> using the session identifier in each server request entry. Accordingly, Applicants submit that a *prima facie* case of obviousness has not been established for claims 11-17.

Finally, the cited art fails to teach or suggest the requirements in claims 18-20 of "system for parsing web site logs <u>one session at a time</u>" by processing a subset of network session data "<u>to group said network session data by session</u>" and "generating a first output file containing network session data <u>grouped by session</u>." Claim 18 (emphasis added). In rejecting these claims, the Examiner cites Carothers paragraph 10 to meet the variously recited "grouped by

session" claim requirements. With all due respect, Applicants submit that the cited Carothers disclosure no where discloses or suggests the claim requirements for processing and grouping the network session data by session or for generating an output file having network session data that is "grouped by session." To the contrary, Carothers discloses only that transactions may be grouped by transaction, and there is no teaching or suggestion by Nareddy or Carothers of parsing web site logs one session at a time by using a means for processing a subset of network session data to group said network session data by session and a means for generating a first output file containing network session data grouped by session. Accordingly, Applicants submit that a *prima facie* case of obviousness has not been established for claims 18-20.

The *prima facie* case fails because the Examiner has provided **zero** evidence of any suggestion or motivation to modify the Nareddy reference based on Carothers' disclosure. *See*, MPEP §§ 2143.01 ("Suggestion or Motivation to Modify the References" is required."). This deficiency is seen from the Examiner's rejection analysis of claim 1 where the Examiner admits that "Nareddy does not explicitly teach the claimed limitation 'grouping entries in the subset that belong to a complete client session,'" but then proceeds to assert, without support, that "Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made, having the teachings of Nareddy and Carothers before him/her, to modify Nareddy grouping entries in the subset that belong to a complete client session because that would provide a method for managing information concerning financial transactions for home banking and develops messages which go into the database easily and efficiently as taught by Carothers (page 1, paragraph 0004)." *See*, Office Action, pp. 5-6. The unexplained citation to Carothers paragraph [0004] does nothing to support the asserted modification of Nareddy since the paragraph [0004] refers only to a desire "to provide a system and method for managing information concerning financial transactions that takes existing messages and the existing software for home banking and develops messages which go into an MIS database and easily and efficiently provides many different types of reports." In particular, the Examiner has not attempted to explain how a person skilled in the art would be motivated by paragraph [0004] to modify Nareddy to meet the requirement in claim 1 of "grouping entries in the subset that belong to a complete client session." *See*, DyStar Textilfarben GMBH v. C. H. Patrick Co., 464 F.3d 1356, 80 USPQ2d 1641 (Fed. Cir. 2006) ("'[C]onclusory statements such as those here provided do not fulfill the agency's obligation' to explain all material facts relating to a motivation to

combine…. We instructed that assumptions about common sense cannot substitute for evidence thereof…"). Indeed, each of these cited objectives from Carothers' paragraph [0004] could also be met by the conventional techniques for processing website server log files, such as described in the "Description of the Related Art" section of the present application. The same failure of "motivation to combine" evidence applies to the rejection analysis of the remaining claims 2-20.

Finally, the *prima facie* case fails because the Examiner has failed to articulate a finding that there was a reasonable expectation of success. *See*, MPEP §§ 2143.02 ("Reasonable Expectation of Success Is Required"). The rejection analysis for claim 1 set forth in the Office Action is entirely silent on the question of whether there is a reasonable expectation of success, as there is rationale provided to support the assertion that the claimed invention would have been obvious. *See*, Office Action, pp. 5-6. The same deficiency applies to the rejection analysis of the remaining claims 2-20.

In view of the failure to establish a *prima facie* case of obviousness over Nareddy and Carothers (alone or in combination with Dow) such as explained above, Applicants respectfully submit that the Examiner has incorrectly applied the legal requirements for establishing obviousness. To establish *prima facie* obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art. In re Royka, 490 F.2d 981, 180 USPQ 580 (CCPA 1974); In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970). This has not been done. At best, the cited combination of references discloses grouping transactions by transaction. There is no disclosure or suggestion in Naredddy and Carothers of using a session-based scheme for grouping and processing log file entries using a memory window to select a subset of the log file records for identifying complete session records that may be analyzed or parsed, and for otherwise identifying incomplete session records for subsequent processing. Accordingly, Applicants respectfully request that the obviousness rejection of claims 1-20 be withdrawn and that the claims be allowed.

CONCLUSION

In view of the amendments and remarks set forth herein, Applicants respectfully submit that all pending claims are in condition for allowance. Accordingly, Applicants request that the rejections of claims 1-20 be withdrawn and that a Notice of Allowance be issued. If there are any remaining issues that might be resolved through a telephonic interview, Applicants' undersigned representative would welcome an opportunity to discuss such issues with the Examiner.

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CERTIFICATE OF TRANSMISSION

I hereby certify that on May 26, 2009 this correspondence is being transmitted via the U.S. Patent & Trademark Office's electronic filing system.

/Michael Rocco Cannatti/

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Respectfully submitted,

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